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Socio-Economomic Characteristics and Profitability of the Contact and Non-Contact Farmers in Oyo Agricultural Zone in a Deregulated Economy

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KEYWORDS Agricultural development project; contact and non-contact farmers; gross margin; food security and poverty alleviation

ABSTRACT This paper assessed the differences in the socio-economic characteristics and profitability of contact and non-contact farmers in the Oyo zone of the Oyo State Agricultural development project (OYSADEP). Descriptive statistics which include frequency counts, tables and figures were used to analyse cross-sectional data for 80 randomly selected farmers. Gross margin analysis was employed to determine the overall financial returns accruing to both categories of farmers. Results show that (54%) of the contact farmers had more formal education while about 56% of the non-contact farmers did not have. About 60% of contact farmers had no subsidiary occupation. This is about twice the proportion for their non-contact counterparts. The gross margin analysis indicate that the contact farmers but made a profit which is about six times as high as that of the non-contact farmers. The study supports some of the earlier findings that a positive correlation exists between the development of infrastructure and rapid flow of agricultural inputs in the OYSADEP. Ultimately, the study supports earlier suggestion that retaining and further supporting the ADP system will remove the current credibility gap between Government and farmers engendered through frequent changes in government policy, programmes and projects. This suggestion holds a major stake in the drive for food security and poverty alleviation.

INTRODUCTION

Over the last few decades, the production of major food crops such as maize, cassava, rice, yam and other stale foods has been decreasing yearly. This decrease has been attributed to some factors over which farmers do not have absolute control (Olayide, 1980). Such limiting factors according to Olayide (1980) include poor delivery system, poor land tenure system, poor financing opportunity to farmers and the greatest being inaccessibility of the farmers to improved technology. This then prompted an upward trend in food prices which should not be attributed to inflationary tendencies alone. It also prompted the importation of food crops such as rice, maize, wheat and sorghum at the expense of the nation's Gross National Income (GNI).

To reverse this declining trend, the Nigerian government instituted various programmes and policies. These programmes and policies were expected to increase the quantity of food crops, which can be produced in order to meet the demand and changing need and taste of the ever growing population. They were also to provide employment opportunities, supply essential raw materials for industries, apply mechanization in agricultural production for increased output and therefore make more income available to farmers. Examples of such programmes include: The National Accelerated Food Production Programme (NAFPP) launched in 1972; The River Basin Development Authorities (RBDAs), 1973; The Agricultural Development Programme (ADP), 1975; The Agricultural Credit Guarantee Scheme (ACGS), 1978; and The Green Revolution, launched in 1980 etc. They have recorded little successes and much failure over the years, hence most of them have been scrapped.

Out of the existing few programmes however, the ADP possesses a high prominence because of the statewide status and huge funding it enjoys. The focus of this study is on the Oyo State Agricultural Development Programme (OYSADEP). OYSADEP is financed under a tripartite arrangement between the Federal Government of Nigeria (27%) and the world bank (63%). The remaining 10% is the contribution of the beneficiaries towards the maintenance of well and water pumps under the rural water supply scheme. The general aim of establishing OYSADEP was for the improvement of the status

of Agriculture in Oyo State. This is in order to ensure sufficiency in food production and for the betterment of the living condition of the small-scale farmers, majority of whom are peasant farmers with low standards of living and low per capita income. It is also to provide farm inputs, rural infrastructures, comprehensive and unified extension service and the construction, rehabilitation and maintenance of rural roads.

Having established and sustained OYSADEP over the years, there is a need to critically examine its role in increasing food production as well as increasing farmers' net income. Few of the studies which have described the role of the ADPs in rural transformation include those of Umen (1984), Oyaride (1988) and Sewell (1987). The roles of the ADPs in terms of provision of infrastructure and socio-economic amenities as a way of enhancing their productivity were demonstrated by these authors. These roles also include positive correlation between the development of the usual infrastructure and rapid flow of agricultural inputs and farm products into and out of farms, markets for input procurement and sales of farm products.

As a follow-up to the above, this study is essentially aimed at assessing the effect of the OYSADEP. This will be achieved by identifying and comparing the effects of inputs used by the contact and non-contact farmers on their outputs and compare the costs and returns on maize and cassava (which are the main crops in the study area). This will enable to a large extent, an assessment of the programme (OYSADEP) in fulfilling the goals for which it was established. It is also expected that the results of this study will act as catalyst for appraising some other government programmes and policies which are essentially aimed at ensuring food security and to alleviate poverty which has remained undaunted among most categories of households in Nigeria.

MATERIALS AND METHODS

The study was carried out in the Oyo Zone of the OYSADEP. Oyo state is situated within the rainforest region of South Western Nigeria. It is characterized by heavy rainfall of 8-10 months until double maxima; that is one in the long rainy season and the other in the short rainy season. The Oyo zone of the OYSADEP consists of Oyo East, Oyo West and Afijio blocks. Majority of the people in this area have farming as their major occupation. The food crops grown are root and tuber, vegetables, fruits, seeds, nuts, grains and tree crops. The most preferred crops are cassava and maize. These are planted either solely or mixed.

A structured questionnaire was designed to collect information from contact and non-contact farmers who are majorly into cassava and maize farming. These farmers were selected from a total of eight cells out of the three blocks. In all, 80 farmers made up of 48 contact and 32 non-contact farmers were randomly selected. Socio-economic information, input-output data in the farming activities, demographic and institutional data were collected. Secondary information was also gathered from the periodicals and OYSADEP records. The data were analysed using frequency distribution percentages and pictorial presentation. Also gross margin analysis was used to calculate the revenue accruing to both contact and non-contact farmers in order to determine the relative contributions of the various inputs to production.

RESULTS AND DISCUSSION

Characteristics of the Respondents

On Table 1, the general characteristics of the contact and non-contact farmers are presented:

Majority of contact farmers (about 54%) had some level of formal education. On the other hand, about 56% of the non-contact farmers were without formal education. These results have an implication on the disparity between the adoption of innovations such as improved seeds, modern farming practices etc. by the OYSADEP. They also have implications on the productivity of farmers (Nasko, 1990).

Most of the contact and non-contact farmers were married. However, about 2% of the contact and 6% of the non-contact farmers were divorced while 6% of the non-contact farmers were separated. About 10% each of the contact and non-contact farmers were widowed. Results further show that about 60% and 31% of the contact and non-contact farmers had farming as their main occupation. Hunting was the commonest subsidiary occupation for the contact farmers while trading was the commonest subsidiary occupation for the non-contact farmers.

Table 1: Characteristics of contact and non-contact farmers.

Characteristics	*Contact Farmers*		*Non-Contact Farmers*	
	Frequency	*% of Total*	*Frequency*	*% of Total*
Educational Level				
No Formal Education	22	45.83	18	56.25
Adult Education/Pry Education	14	29.17	9	28.13
Modern/Secondary Education	12	25	5	15.63
Marital Status				
Married	40	83.33	24	75
Single	2	4.17	1	3.13
Divorce	1	2.08	2	6.25
Separated	-	-	2	6.25
Widowed	5	10.42	3	9.38
Subsidiary Occupation				
Hunting	12	25	5	15.63
Basket Weaving	5	12.42	6	18.75
Wood Carving	2	4.17	2	6.25
Trading/Business	-	-	9	28.13
No Subsidiary Occupation	29	60.42	10	31.25

Source: Field Survey, 2000

Majority of the contact farmers were between 41 and 50 years of age. Age is considered to be of relevance to the quality of physical labour, especially in developing countries where health and nutritional levels are poor (Fapohunda, 1984). This assertion could contribute to their level of receptivity to new technology.

Farm inputs used were improved seeds, fertilizer, pesticides, hired and family labour. The study revealed that many of the contact farmers used fertilizers (97%), about 27% used pesticides, 88% used tractor for their farm operations and all of them used improved seeds (Fig. 1). The reason for this could be due to the availability of these farm inputs for purchase or hire (in case of tractor) at the OYSADEP service centre (Akinyosoye, 2000). Among the non-contact farmers, about 72% applied fertilizers to their crops, 38% used improved planting materials, 6% used pesticides and about 34% used tractors (Fig. 2). This might be because they preferred to purchase most of their farm inputs from open-markets where prices were not subsidized. They also preferred these inputs from previous harvested materials or from friends where the quality was obviously low.

Gross Margin Analysis

For a representative contact and non-contact farmer, variable costs of the direct or tractable farm inputs were computed. This enabled the deduction of the gross margin from the average revenue realised by each category of farmer. In Table 2, costs of labour, seeds, fertilizer, hoes and cutlasses, pesticides, tractor hiring (all in Naira/hectare) are shown. The total variable cost incurred by an average contact farmer stood at N36,824.71 while that of a non-contact farmer stood at N 29,177.57. The cost of pesticides for the non-contact farmer was not available because they did not use them in most cases. The table further shows that the cost of labour, seeds, hoes and cutlasses were lower for the contact farmers. The reason for this is not far-fetched. Labour, when there are improved seeds and technologies need not to be intensive (Dipeolu and Akintola, 1999). The availability of good seeds and chemicals probably afforded the contact farmers less labour and implement costs.

In all, gross margin for an average contact farmer per hectare stood at N 81,552.89 and N

Table 2: Variable costs, revenue, expenses and gross margins of contact and non-contact farmers (N/Hectare).

Item	*Contact Farmers*	*Non Contact Farmers*
Variable Cost (₦ /hectare)		
Labour	19309.9	19420.1
Seeds	288.79	2057.5
Fertilizer	6041.67	3437.5
Hoes and cutlasses	638.54	678.125
Pesticides	3800	-
Tractor hiring	6745	3584.38
Total	36824.7	29177.6
Revenue and Expenses (₦ /hectare)		
Revenue	118378	43599.2
Expenses	36824.7	29177.6
Total	81552.9	14421.7

Source: Field Survey, 2000

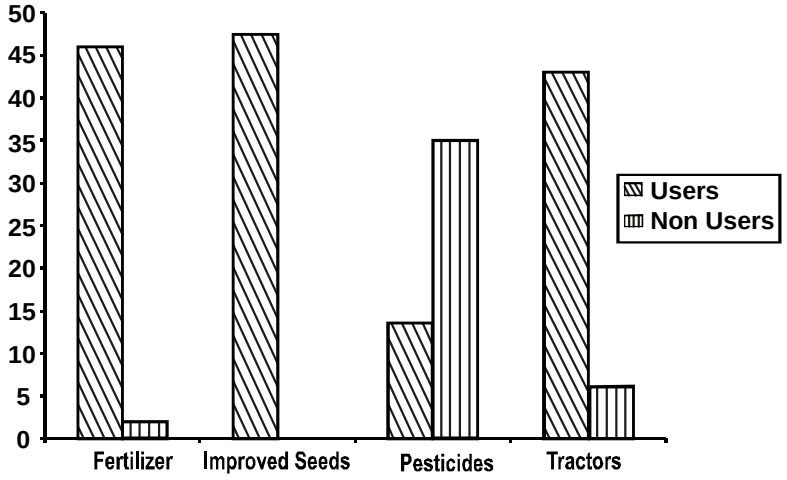

Fig. 1. Bar chart showing the level of the input usage by the contact farmers

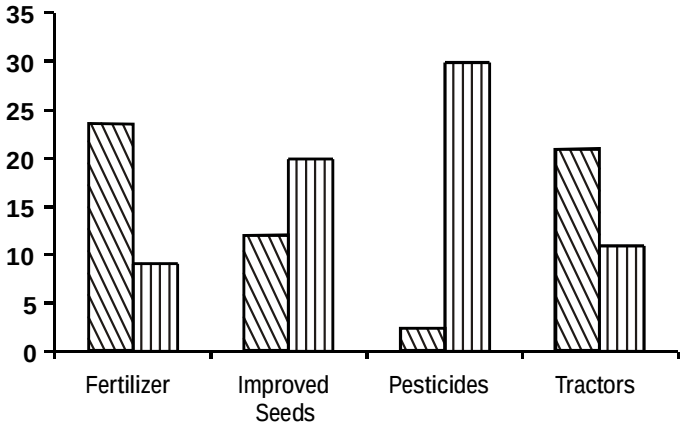

Fig. 2. Bar chart showing the level of the input used by the non contact farmers

14,421.66 for a non-contact farmer. This shows that, despite the higher variable cost incurred by the contact farmers, the profit accruing to them is still far higher than that of the non-contact farmers. The percentage difference stood at more than 82% in favour of the contact farmers. Similar results were reported by Nwoko and Mbawonku (1983). In their study, they used the cost-benefit ratio analysis to compare the performance of contact and non-contact farmers. They were however of the opinion that the differences in benefit attributed to the project was less than 5% with the actual net benefit falling short of the estimate by about 70%. Oriade (1986), in his own part, found that a positive correlation existed between the output and income levels of contact and non-contact farmers and the services provided by the ADP. He therefore suggested that in order to increase farmer's income, more input should be made available to the farmers and they should be taught how to make proper use of these inputs in order to ensure higher productivity.

CONCLUSIONS

The objectives of the ADPs are to increase food production, to raise the economic status and standard of living of rural farm families. This study has assessed the effect of the activities

Oyo zone of the Oyo State Agricultural Development Programme (OYSADEP$_s$) on the income of the contact and non-contact farmers.

The study revealed that the percentage of respondents that used fertilizer, improved seeds, pesticides and tractor is higher for contact farmers, that is 97.2%, 100%, 72.92% and 87.50% respectively. While it is lesser for the non-contact farmers (except for fertilizer), 71.88%, 37.50% respectively.

The findings also showed that the percentage of the contact farmers that have no formal education is smaller, about 45.83% and this contributed to their easy acceptability of the new technologies while for the non-contact farmers the percentage of those that have no formal education is higher, about 56.25%.

Gross Margin Analysis revealed that the contact farmers realised more income, about N118377.60 per hectare on both maize and cassava farms than non-contact farmers, with about N43599.22 per hectare.

Based on the result of this study, the following recommendations are suggested:

There should be adequate and timely supply of improved seeds, fertilizers and other inputs by the Agro Service Centres of the ADP. Various strategies should be adopted to widen the farmer's participation in the project by carefully explaining the benefits of the programme to non-contact farmers. Land should be made accessible to participating farmers at a reduced cost to encourage other people to participate in the programme and to allow for more acquisition of land by participating farmers, thus increasing the scale of production. Adequate and proper training should be given to the farmers so that they will be able to allocate their resources optimally to prevent under-utilization of resources, which are supposed to be part of their major problems. There should be increase in the umber of village extension workers (VEW), so that they will be able to cover the whole area. And there should be strengthening of the extension agents through the provision of incentives to enable them work very hard. Sufficient training should be given to extension staff in the Local Government Area so as to enhance their performance.

Finally, as suggested by Akinyosoye (2000a; 2000b), retaining and further supporting the ADP system will remove the current credibility gap between Government and farmers engendered through frequent changes in government policy, programmes and projects. Moreover, since the Nigerian Government has started to realise its proper role in managing the nation's agriculture, there is hope that with the expected enabling environment created by the government, coupled with the current drive to deregulate major sectors of the economy, farming and other non-agricultural activities will continue to flourish in the rural communities. This has a major stake in food security and in the alleviation of poverty.

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